

IN THE CLAIMS

Please cancel claims 5 and 28, and amend claims 1, 12, 16 and 23 as follows:

Claim 1 (Currently amended): A scintillator array for use in a CT imaging system, comprising:

a plurality of projecting elements disposed proximate one another, the projecting elements configured to emit light in response to receiving x-rays; and

a glass compound containing a plurality of reflective particles, the glass compound being disposed on over and between the plurality of projecting elements, wherein the projecting elements emit light in response to receiving x-rays, the glass compound including Chloride for reducing a refractive index of the glass compound.

Claim 2 (Original): The scintillator array of claim 1, wherein the projecting elements are constructed from a ceramic.

Claim 3 (Original): The scintillator array of claim 1, wherein the glass compound comprises at least one of an oxide glass, a fluoride glass, and an oxy-fluoride glass.

Claim 4 (Original): The scintillator array of claim 1, wherein the glass compound has a reflective index less than or equal to 1.6.

Claim 5 (Canceled).

Claim 6 (Original): The scintillator array of claim 1, wherein substantially all of the reflective particles are 100-300 microns in diameter.

Claim 7 (Original): The scintillator array of claim 1, wherein the reflective particles comprise one or more of TiO₂ particles, Ta₂O₅ particles, PbO particles, Bi₂O₃ particles, HfO₂ particles, WO₃ particles, UO₂ particles, Yb₂O₃ particles, and ThO₂ particles.

Claim 8 (Original): The scintillator array of claim 7, wherein the reflective particles are comprise one or more of Highlight particles, gadolinium oxy-sulfide particles, bismuth germanate particles, lutetium orthosilicate particles, gadolinium gallium garnet particles.

Claim 9 (Original): The scintillator array of claim 1, wherein between 20-60 percent of a volume of the glass compound comprises the reflective particles.

Claim 10 (Original): The scintillator array of claim 1, wherein the glass compound contains a light absorber compound.

Claim 11 (Original): The scintillator array of claim 10, wherein the light absorber compound comprises Cr₂O₃.

Claim 12 (Currently amended): A method for manufacturing a scintillator array for use in a CT imaging system, comprising:

mixing a plurality of ~~glass-particles~~ of a glass compound with a plurality of reflective particles in a fluid to obtain a mixture;

removing the fluid from the mixture to obtain a fluidless mixture;

~~coating-disposing the fluidless mixture over and between~~ a plurality of projecting elements disposed proximate one another ~~with the mixture;~~

applying a pressure to the plurality of projecting elements and to the fluidless mixture; and

heating the plurality of projecting elements and the fluidless mixture to a predetermined temperature to form the scintillator array.

Claim 13 (Original): The method of claim 12, wherein the projecting elements are constructed from a ceramic.

Claim 14 (Original): The method of claim 12, wherein the glass compound comprises one of an oxide glass, a fluoride glass, and an oxy-fluoride glass.

Claim 15 (Original): The method of claim 12, wherein the glass compound has a reflective index less than or equal to 1.6.

Claim 16 (Currently amended): The method of claim 12, wherein the glass compound contains Chloride for reducing a melting temperature of the glass compound and for reducing an refractive index of the glass compound.

Claim 17 (Original): The method of claim 12, wherein substantially all of the reflective particles are 100-300 microns in diameter.

Claim 18 (Original): The method of claim 12, wherein the reflective particles comprise one or more of TiO₂ particles, Ta₂O₅ particles, PbO particles, Bi₂O₃ particles, HfO₂ particles, WO₃ particles, UO₂ particles, Yb₂O₃ particles, and ThO₂ particles.

Claim 19 (Original): The method of claim 18, wherein the reflective particles comprise one or more of Highlight particles, gadolinium oxy-sulfide particles, bismuth germanate particles, lutetium orthosilicate particles, gadolinium gallium garnet particles.

Claim 20 (Original): The method of claim 12, wherein between 20-60 percent of a volume of the glass compound comprises the reflective particles.

Claim 21 (Original): The method of claim 12, wherein the glass compound contains a light absorber compound.

Claim 22 (Original): The method of claim 21, wherein the light absorber compound comprises Cr₂O₃.

Claim 23 (Currently amended): A detector module for use in a CT imaging system, comprising:

a scintillator array having a plurality of projecting elements disposed proximate one another, the projecting elements configured to emit light in response to receiving x-rays, and a glass compound disposed ~~on~~ over and between the plurality of projecting elements, the glass compound containing a plurality of reflective particles and Chloride for reducing a refractive index of the glass compound, ~~wherein the projecting elements emit light in response to receiving x-rays;~~ and

a photodiode array configured to receive the light emitted from the scintillator array and to generate electrical signals responsive thereto.

Claim 24 (Original): The detector module of claim 23, further comprising a ceramic substrate coupled to the photodiode array.

Claim 25 (Original): The detector module of claim 23, wherein the projecting elements are constructed from a ceramic.

Claim 26 (Original): The detector module of claim 23, wherein the glass compound comprises one of an oxide glass, a fluoride glass, and an oxy-fluoride glass.

Claim 27 (Original): The detector module of claim 23, wherein the glass compound has a reflective index of less than or equal to 1.6.

Claim 28 (Canceled).

Claim 29 (Original): The detector module of claim 23, wherein substantially all of the reflective particles are 100-300 microns in diameter.

Claim 30 (Original): The detector module of claim 23, wherein the reflective particles comprise one or more of TiO₂ particles, Ta₂O₅ particles, PbO particles, Bi₂O₃ particles, HfO₂ particles, WO₃ particles, UO₂ particles, Yb₂O₃ particles, and ThO₂ particles.

Claim 31 (Original): The detector module of claim 30, wherein the reflective particles are comprise one or more of Highlight particles, gadolinium oxy-sulfide particles, bismuth germinate particles, lutetium orthosilicate particles, gadolinium gallium garnet particles.

Claim 32 (Original): The detector module of claim 23, wherein between 20-60 percent of a volume of the glass compound comprises the reflective particles.

Claim 33 (Original): The detector module of claim 23, wherein the glass compound contains a light absorber compound.

Claim 34 (Original): The detector module of claim 33, wherein the light absorber compound comprises Cr₂O₃.